

REMARKS/ARGUMENTS

Preliminary Matters

Claims 2-22 and 29-37 are currently pending in the present patent application.

Copies of a change of correspondence as filed on August 2, 2011 and the subsequently issued EFS-Web Electronic Acknowledgment Receipt accompany this amendment. This form was signed by Mr. Bryan Santarelli, who is a partner of mine at Graybeal Jackson LLP and who is, as of now, the only attorney formally of record in the instant application. We were instructed by the Applications Assistance Unit at the USPTO to submit this change of correspondence form in response to a call we made to them when we became aware of the fact that we failed to receive the present final Office Action because it was mailed to the incorrect correspondence address.

Please ensure that the next correspondence in this application is mailed to the new correspondence address listed in this form, namely Graybeal Jackson LLP, 400 – 108th Avenue NE, Suite 700, Bellevue, WA 98004. See the accompanying change of correspondence address form. If there is any issue regarding changing the correspondence address please telephone the undersigned or Mr. Santarelli at 425-455-5575 so that we can resolve the issue and properly make the above-listed address the correspondence address for the present application.

The Rejections Under 35 USC § 103

In the final Office Action mailed April 4, 2011, the Examiner rejects claims 2-22 and 29-37 under 35 USC § 103(a) as being unpatentable over US Patent No. 5,469,361 to Moyne (hereinafter "Moyne") in view of US Patent Publication No. 2005/0097577 to Mathur (hereinafter "Mathur").

Once again, the Examiner cites Moyne for disclosing all elements of the claims, including independent claims 5, 12, and 29, except for the self-configuration interface

system utilizing "the retrieved interface configuration information to facilitate communication between the hardware subsystem and the self-configuring application services system via a selected one of the plurality of communication protocols." See page 4 of the Office Action. The Examiner points to Mathur for disclosing this element, citing paragraph 0093 of Mathur in particular.

More specifically, in the final Office Action the Examiner states on page 2 that the Mathur published application "demonstrates the system would search the appropriate drivers (communication information as there are plurality of drivers available in the system, see par 0072) in order to facilitate the communications via a different protocols (different drivers, par 0082) by utilizing the interface configuration information (detection routine, refer to par 0092)."

Claim 5

Claim 5 recites, in part, a self-configuring interface system coupled to the hardware subsystem and the application services system and comprising an interface system configuration module that is operable after execution of an initialization or update routine on the signal database to retrieve interface configuration information from the signal database, and to utilize this interface configuration information to facilitate communication between the hardware subsystem and the self-configuring application services system via a selected one of the plurality of communication protocols.

The Examiner now points to the communications module 216 shown in Figure 2 of the Mathur publication for disclosing in paragraph 0072, 0082, and 0092 searching the appropriate drivers as there are plurality of drivers available in the system as discussed in par 0072 for the communications module 216 in order to facilitate communications via different protocols. The communications module 216, however, merely represents standard communications functionality and communication ports that are supplied in a typical computer system. Paragraphs 73-81 of Mathur list

communications functionality that includes serial I/O support, networking support, Internet protocols, PC card support, and infrared transceiver support to allow a variety of different devices to plugged into and communicate with the computer system.

Claim 5 recites that the interface system configuration module: 1) is operable after execution of an initialization or update routine on the signal database to retrieve interface configuration information from the signal database; and 2) utilize the retrieved preexisting interface configuration information to facilitate communication via a selected one of a plurality of communication protocols. An embodiment of the invention covered by claim 5 is described in paragraph 58 and shown in Figures 1-4 of the present application. The signal exchange modules 214 (Figure 2) communicate with the sensing/control subsystem elements 120 (Figure 2) and are contained in the framework and interface system 200 (see Figures 1 and 2). The framework and interface system 200 functions as an interface between the sensing/control subsystem 120 and application software 530 shown in Figure 1. In this way, changes in components in the subsystem 120 don't necessitate changes in the application software 530.

This is a different function than the conventional plug and play functionality disclosed in Mathur. Plug and play allows an unknown device to be plugged into one of the communication ports of the computer system and the driver for that device to be automatically found and installed to make the device functional. In contrast, the function of the framework and interface system 200 is as described above to allow for hardware changes in the sensing/control subsystem 120 to be handled by updating the signal database 400 which, in turn, enables the new hardware to communicate with the application software 530. See paragraph 58. As discussed in paragraph 58 of the present application, if a new signal exchange module 215 is plugged into the electrical interface unit 210 of Figure 2 then communications to handle this new signal exchange module must also be provided. The signal database 400 is updated to provide required objects and are created or instantiated as part of an update procedure for the signal database. See paragraph 58, lines 8-10. The configuration

and initialization module 332, which as seen in Figure 3 is part of the framework services module 330 contained in the framework interface system 200 of Figure 2, subsequently executes an initialization or update routine that retrieves the new information from the signal database 400 and generates a new hardware interface module 355 (Figure 3) for communicating with the new signal exchange module 215. See paragraph 58, lines 10-14.

Amended claim 5 now expressly recites that the interface system configuration module is operable after execution of an initialization or update routine on the signal database to retrieve interface configuration information from the signal database, and to utilize this interface configuration information to facilitate communication between the hardware subsystem and the self-configuring application services system via a selected one of the plurality of communication protocols. The amended claim 5 covers the embodiment described with reference to Figures 1-4 and paragraph 58 of the present application. Neither the conventional plug and play functionality nor the communications module 216 of Mathur discloses or suggests such an interface system configuration module.

For these reasons, the combination of elements recited in claim 5 is allowable. Dependent claims 2-4 and 6-11 are allowable for at least the same reasons as claim 5 and due to the additional elements added by each of these dependent claims.

Claim 12

Independent Claim 12 recites a system including a hardware subsystem, an application database referencing a first software object that corresponds to a manner of processing information associated with an electrical signal. A self-configuring application services system includes a configuration module coupled to the hardware subsystem and is coupled to retrieve application service configuration information from the application database, and includes the first software object.

Additionally, a signal database stores communications protocol interface

configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system via a plurality of communication protocols and references a second software object that corresponds to a manner of processing information associated with an electrical signal and associate an event code with the electrical signal.

Additionally, a self-configuring interface system is coupled to the hardware subsystem and the application services system and includes an interface system configuration module operable to retrieve updated interface configuration information from the signal database subsequent to an update of the signal database and to facilitate communication between the hardware subsystem and the self-configuring application services system via a plurality of communication protocols.

Once again, Mathur does not contemplate such a signal database and interface system configuration module. For these reasons the combination of elements recited in claim 12 is allowable. Dependent claims 13-22 are allowable for at least the same reasons as claim 12 and due to the additional limitations added by each of these dependent claims.

Claim 29

Independent claim 29 recites, in part, a method that include the operation of, responsive to a change in the components in the hardware subsystem, the system updating application service configuration information and utilizing the updated application service configuration information in determining a required communications protocol from a plurality of communication protocols for the changed components in the hardware subsystem. The method further includes selecting communications protocol interface configuration information based on said determining and retrieving the selected communications interface configuration information that corresponds to the changed components in the hardware subsystem and which associates a second set of software objects with at least one electrical signal.

As previously discussed above with regard to independent claims 5 and 12, Moyne and Mathur fail to teach or suggest updating application service configuration information and then utilizing the updated application service configuration information in determining a required communications protocol from a plurality of communication protocols for the changed components in the hardware subsystem. The function of the plug and play of Mathur simply does not function in this way as the purpose of plug and play is different.

For these reasons, the combination of elements recited in Claim 29 is allowable and dependent claims 30-37 are allowable for at least the same reasons as Claim 29 and due to the additional elements added by each of these dependent claims.

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Conclusion

The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. **Should the Examiner have any further questions about the application, Applicants respectfully request the Examiner to contact the undersigned attorney at (425) 732-4624 to arrange for a telephone interview to discuss the outstanding issues.**

The filing of this document constitutes a request for any needed extension of time. The Commissioner is hereby authorized to charge any deficiency of fees submitted herewith, or credit any overpayment, to Deposit Account No. 07-1897.

Respectfully submitted,
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